

# Assignment-7

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Download all python codes from

<https://github.com/BatharajuRamana/Assignment7/tree/main/Assignment7>

and latex-tikz codes from

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## 1 QUESTION No-2.70

Find  $\mathbf{p}^{-1}$ . if it exists, given  $\mathbf{p} = \begin{pmatrix} 10 & -2 \\ -5 & 1 \end{pmatrix}$

## 2 SOLUTION

Given that

$$\mathbf{p} = \begin{pmatrix} 10 & -2 \\ -5 & 1 \end{pmatrix} \quad (2.0.1)$$

let

$$\mathbf{A} = \begin{pmatrix} a & b \\ c & d \end{pmatrix} \quad (2.0.2)$$

$$\det A = ad - bc \quad (2.0.3)$$

$$\mathbf{p} = \begin{pmatrix} 10 & -2 \\ -5 & 1 \end{pmatrix} \quad (2.0.4)$$

$$\implies \det p = 10 - 10 \quad (2.0.5)$$

$$\implies 0 \quad (2.0.6)$$

Does not exists  $\mathbf{p}^{-1}$